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PATENTS FORM NO. 5

NEW ZEALAND
PATENTS ACT 1953
COMPLETE SPECIFICATION

"AN IMPROVED BUILDING PANEL"

Divided out of N.Z. application No. 180508 dated 2nd April 1976

WE, DONALD STEWART NAPIER, Australian citizen of 14 Vincent Street, Surrey Hills, 3127, Victoria, Australia, IAN FRANK NAPIER Australian citizen of 629 Canterbury Road, Surrey Hills, 3127, Victoria, Australia and BRIAN NORMAN LENNOX, Australian citizen, of 35 Barnes Avenue, Burwood, 3125, Victoria, Australia, hereby declare the invention for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement: -

The present invention relates to panels for use in the construction of cabins, houses or the like, and to the manner in which the panels are affixed to form said cabins, houses and the like.

The object of the present invention is to provide an attractive, weatherproof panel for use in construction of cabins, houses or like structures or for use as partitioning wherein construction is rapid yet easy. A further object is to provide a simple manner of affixing these panels to form walls.

According to the present invention, there is provided a panel comprising a braced rectangular framework having inner and outer wall cladding thereon, the space between the inner and outer cladding preferably being insulated, the outer cladding extending beyond the vertical side members of the framework so that the vertical side members form with similar vertical side members of adjacent panels, recesses wherein are located support posts for a roof structure of a cabin, house or like structure.

The present invention also includes a method of constructing a wall of a cabin, house or like structure, comprising erecting a desired number of roof support posts, locating between adjacent support posts panels as described above, the outer vertical edges of said panels abutting to enclose the support posts within the recess formed by adjacent panels, the inner vertical edges of the panels being covered by coverplates which enclose the support posts within the recess, the outer surface of the panel forming the outer surface of the wall and the inner surface of the panel being

the inner surface of the wall.

But in order that the invention will be more clearly understood, reference will now be made to the accompanying drawings, wherein:-

Figure 1 shows the inner face of a panel according to the present invention;

Figure 2 shows two panels joined together in one plane;

Figure 3 shows two panels joined together perpendicular to each other;

Figure 4 shows a panel joined to a window panel; and

Figure 5 shows two window panels joined together.

The panel 11 shown in Figure 1 has a framework 12 braced by vertical strut 13 and cross member 14, outer cladding 15, such as redwood ply, and internal cladding 16 being attached to the framework, the gap between the framework and the cladding preferably being filled with insulation to comprise a weather- insulated wall. When the panel is used as an internal wall or as partitioning, the insulation may be omitted. Internal cladding 16 may have a timber, plaster, laminated plastic or other desired surface finish.

Figures 2 to 5 show the manner in which adjacent panels are joined to each other, adjacent vertical members of adjacent frameworks forming a recess 23 wherein steel support posts 24 are housed. A continuous strip of flashing 25 within the recess, shielding the post from the actual joint ensures that the joint remains weatherproof, coverplates 26 fastening the edges of the strip to the framework 12. If desired, service pipes and wires may be located in the recess 23.

As shown in Figure 2, when it is desired to join two panels in the same plane, their ends are butted together, the

vertical frame members 17 enclosing post 24 and flashing 25. Cover plate 26 hides the joint from the interior of the room and is preferably finished with a surface matching the surface finish on the cladding 16 on the inner face of the panel.

When two panels are joined at right angles to each other, as shown in Figure 3, the vertical frame members are set slightly further from the panel sides so that they can accommodate the support 24 in the square hollow so formed. Flashing 25 around the post 24 is held in position by the square bead 27, while an upright post 28 may be used to enclose the external gap between the two panels.

The frames 29 of the windows are designed to project the same distance into each room as does the framework 12 so that a coverplate, identical to coverplate 26 may be used at junctions between the panels and windows (Figure 4) and between two windows (Figure 5). Windmoulds 30 cover the external gap between the panel and windowframe, while coverplate 31 and infill panel 32 are used to bridge and cover the external gap between two windows.

When constructing a cabin or the like, the flooring, either concrete slab or a timber floor with preferably concrete footings, is first placed in position, then a framework of steel posts erected and finally the roof. The roof may be made of any conventional finish or it may be made of similar panels. Once the roof and flooring are in position, the panels which are of the desired wall height are located between adjacent posts such that they butt end to end behind each post. Windows and door panels are located where desired, these panels also occupying the space between two adjacent posts. The side vertical members together with the butted

side edges of adjacent panels form a recess enclosing the steel post, a flat strip of timber forming a coverplate to the recess, so hiding the steel post. If desired, electrical wiring and/or water and/or gas pipes may be located within the recesses for ease of installation thereof.

The panel is preferably provided in 1.7m modules such that any number of cabin floor plans may be readily designed. Other sized modules may be used, dependent on the spacing of the support posts and window panels used.

As the panels provide a complete wall panel, it will be apparent that they are ideally suited for use by the 'do-it-yourself' home-builder who may either construct the cabin completely, or build onto an erected framework.

Thus it will be seen that the present invention provides a building panel which greatly simplifies the construction of cabins, houses and like structures in that it provides for ease of construction, secure weatherproofing and insulation with a choise of surface finishes.

What we claim is: 180360

1. A panel comprising a braced rectangular framework having inner and outer wall cladding thereon, the outer cladding extending beyond the vertical side members of the framework so that the vertical side members form with similar vertical side members of adjacent panels, recesses wherein are located support posts for a roof structure of a cabin, house or the like.

2. A panel as claimed in claim 1 wherein the space between the inner and outer cladding is insulated.

3. A panel substantially as herein described with reference to Figure 1 of the accompanying drawings.

4. A wall formed of a number of panels as claimed in any one of claims 1 to 3 wherein adjacent panels are joined to each other, adjacent vertical side members of adjacent frameworks forming a recess wherein roof support posts are housed.

5. A wall as claimed in claim 4 wherein a continuous strip of flashing is located within the recess, shielding the post from the actual joint to ensure that the joint is weather-proof, coverplates fastening the edges of the strip to the framework.

6. A method of constructing a wall of a cabin, house or the like, comprising erecting a desired number of roof support posts, locating between adjacent support posts wall panels as claimed in any one of claims 1 to 3, the outer vertical edges of the panels abutting to enclose the support posts within a recess formed by adjacent panels, the inner vertical edges of the panel being covered by coverplates

which enclose the support posts within the recess, the outer surface of the panel forming the outer surface of the wall and the inner surface of the panel being the inner surface of the wall.

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by their attorneys
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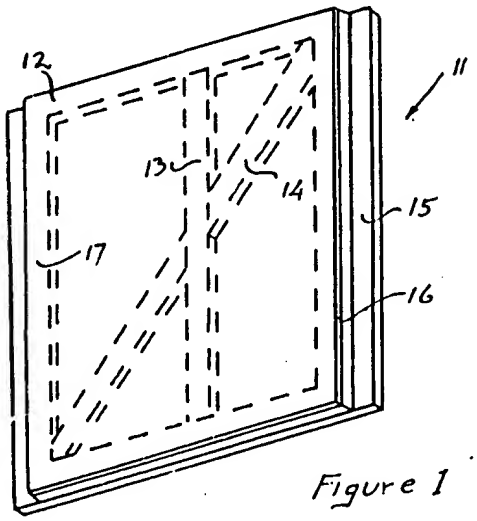

Figure 1

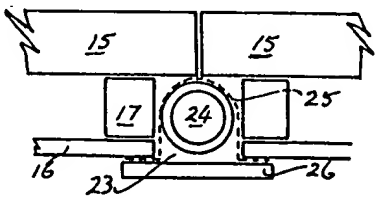

Figure 2

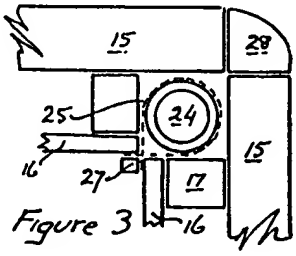

Figure 3

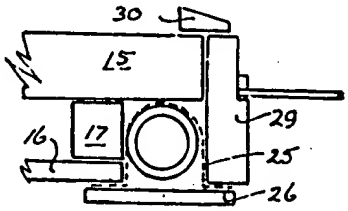

Figure 4

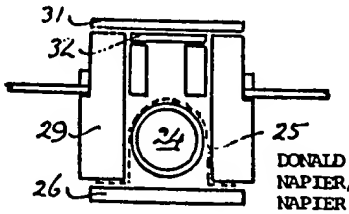

Figure 5

DONALD STEWART NAPIER, IAN FRANK NAPIER & BRIAN NORMAN LENNOX

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ATTORNEYS FOR THE APPLICANTS

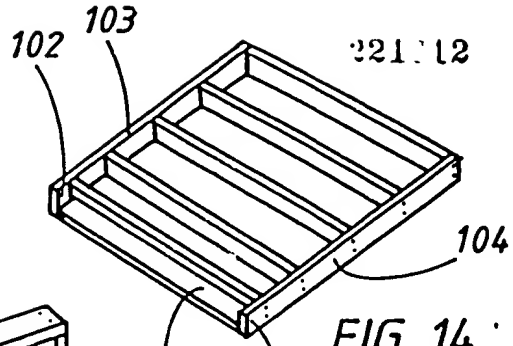

FIG. 14

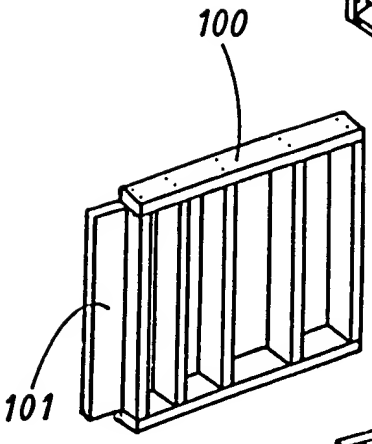

FIG. 13

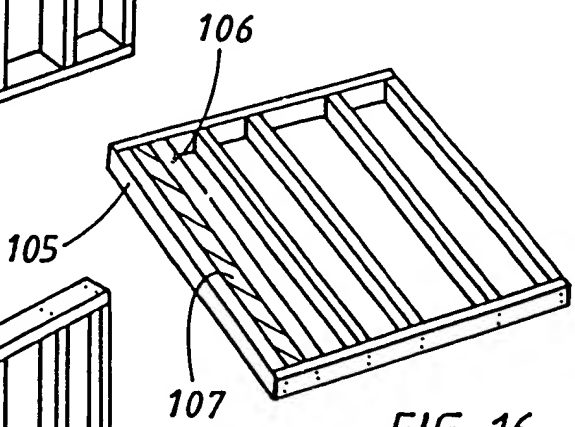

FIG. 16

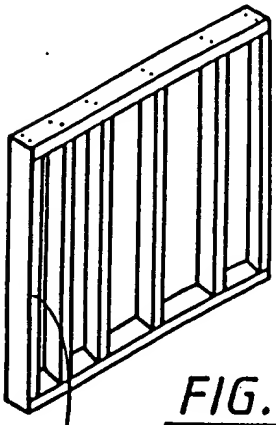

FIG. 15

By his / their authorised agent
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